

KLEINZELLER, A; KNOTKOVA, A.

Electrolyte transport in rat diaphragm. Physiol. Bohemoslov. 13
no.4:317-326 '64.

1. Laboratory for Cell Metabolism, Institute of Microbiology,
Czechoslovak Academy of Sciences, Prague.

L 23997-66 BT(1)/MA(h)
ACC NRI AP6009838

SOURCE CODE: UR/0413/66/000/004/0031/0031

AUTHOR: Borovkov, V. S., Kots, L. L., Lukovtsev, P. D., Sokolov, L. A.

ORG: none

66
B

TITLE: An ELF pulse generator, Class 21, No. 178858 [announced by Institute of Electrochemistry, AN SSSR (Institut elektrokhimii AN SSSR)]

SOURCE: Izobreteniya, promyshlennyye obraztsey, tovarnyye znaki, no. 4, 1966, 31

TOPIC TAGS: ELF, pulse generator, positive feedback, current stabilization, semiconductor device

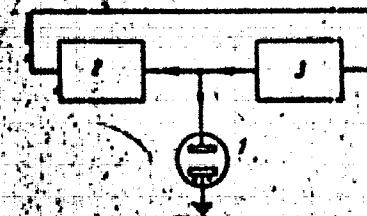
ABSTRACT: This Author's Certificate introduces: 1. An ELF pulse generator based on semiconductor devices. The unit contains a switching circuit, a reversible current stabilizer and a positive feedback circuit. In order to reduce the frequency and increase the stability of the generated pulses, an electrochemical time-delay element is connected in the positive feedback circuit at the output of the reversible current stabilizer. The voltage from this element is fed to the switching circuit. 2. A modification of this generator in which various periods of oscillations may be produced by connecting several electrochemical elements with various time delays in the feedback circuit.

UDC: 621.373.52

Card 1/2

L 23997-66

ACC NR: AP6009836



1--electrochemical time-delay element; 2--electronic switching circuit; 3--reversible current stabilizer

SUB CODE: 09/ SUBM DATE: 05Apr85/ ORIG IEF: 000/ OTH REF: 000

Card 2/2 *pls*

ALEKSEYEV, V.N.; KNOTS, L.L.; TARASEVICH, M.R.; SHUMILOVA, N.A. (Moscow)

Apparatus for investigating electrochemical systems by the
triangular pulse method. Zhur. fiz. khim. 38 no.4:1048-1051
(MIRA 17:6)
Ap '64.

1. Akademiya nauk SSSR, Institut elektrokhimii.

ALEKSEYEV, V.N.; ZHUTAYEVA, O.V.; KNOTS, L.I.; LENTSNER, B.J.; TARASEVICH, M.R.; SHUMILOVA, N.A.

Method of trapezoidal voltage pulses. Elektrokhimiia 1
no.3:373-376 Mr '65. (MIRA 18:12)

1. Institut elektrokhimii AN SSSR.

KNOTS, L.L.; DUBCVIK, O.G.

Technique of generating self-oscillations in a cell for
measuring the Volta potential difference by the condenser
method. Elektrokhimiia 1 no.7:788-793 Jl '65.

(MIRA 18:10)

1. Institut elektrokhimii AN SSSR.

LEYKIS, D.I.; SEVAST'YANOV, E.S.; KNOTS, L.L.

Change in the impedance components of an electrode with
change of alternating current frequency. Zhur. fiz. khim.
38 no.7:1833-1837 J1 '64. (MIRA 18:3)

1. Institut elektrokhimii AN SSSR.

L-7272-66 BT(n)/BP(c)/TC/SD(a)/MP(j)/T/MP(t)/MP(b) IJP(c) PS/JD/10/M
ACC NR: AP5025083 SOURCE CODE: UR/0364/65/001/010/1268/1272

AUTHOR: Burshteyn, R. Kh.; Pshenichnikov, A. G.; Tyurin, V. S.; Knote, L. L.

ORG: Electrochemical Institute AN SSSR (Institut elektrokhimii AN SSSR)

TITLE: Chemisorption and oxidation of hydrocarbons on a platinum electrode I.

Ethane

SOURCE: Elektrokhimiya, v. 1, no. 10, 1965, 1268-1272

TOPIC TAGS: hydrocarbon, chemisorption, oxidation, electrode, platinum, electrolytic cell

ABSTRACT: It has been demonstrated that the chemisorption of organic substances on platinized platinum is accompanied by processes of dehydrogenation, and hydrogenation and by breaking of the C-C and C=C bonds. It follows from galvanostatic charge curves that, in the chemisorption of ethylene and ethane on a platinum surface, the amount of chemisorbed hydrogen and organic groups depends on the experimental conditions. The present article examines the process of the chemisorption and oxidation of ethane on a platinum electrode, using the method of tri-

Card 1/2

UDC: 541.13

L 7972-66

ACC NR: AP5025083

angular pulse voltages with a scanning speed of 5 mv/sec. The $i-\Phi$ curves were recorded with a two-coordinate automatic recording instrument, Type PDS-021. The experiments were carried out in 1 N H_2SO_4 at 90 C. The electrode, at a given potential (Φ), was brought into contact with a solution saturated with ethane. The residence time in the solution saturated with ethane, at a potential equal to 1.1 volts, was calculated from the moment when the electrode attained a potential of 0.6 volts. Then the hydrocarbon was eliminated from the solution by passing argon through it for a determined period of time. The $i-\Phi$ curves were constructed by taking different intervals of time for the residence of the ethane in the chemisorbed state. The experimental results are exhibited graphically and in tabular form. Orig. art. has: 7 formulas, 5 figures and 1 table

SUB CODE: GC/ SUBM DATE: 30 May65/ ORIG. REF: 003/ OTH REF: 003

GC
Card 3/2

L 8167-66

EEG(n)/EPF(n)-2/EWA(h)/EWT(1) AT/WW

ACC NR: AP5025686

SOURCE CODE: UR/0286/65/000/015/0036/0037

AUTHORS: Knots, L. L.; Lentner, B. I.; Alekseyev, V. N.

51

B

ORG: none

TITLE: Single trapezoidal pulse generator, Class 21, No. 174664 [announced by
Institute of Electrochemistry, AM SSSR (Institut elektrokhimii AN SSSR)]

SOURCE: Byulleten' izobretений i tovarnykh znakov, no. 18, 1965, 36-37

TOPIC TAGS: pulse generator, pulse shaper

ABSTRACT: This Author Certificate presents a single trapezoidal pulse generator containing a device with two stable states with independent regulation of the positive and negative levels of the output voltage, a nonlinear integrator with independent regulation of the integration limits, a differentiating amplifier, a passive RC circuit, and a time delay unit (see Fig. 1). To insure the mutually independent regulation of the trapezoidal pulse parameters, the integrator is connected in series with the device with two stable states. The differentiating amplifier, the passive RC circuit, a trigger, and the regulated time delay unit, which are all connected in series, are connected between the integrator output and

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UDC: 621.373.43

L 8167-66
ACC NR: AP5025686

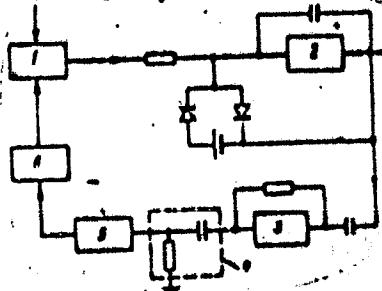


Fig. 1. 1- device with two stable states; 2- nonlinear integrator; 3- differentiating amplifier; 4- passive RC circuit; 5- trigger; 6- regulated time delay unit

the bistable device input. Orig. art. has 1 diagram.

SUB CODE: EC/

SUBM DATE: 07Mar63

JW
Card 2/2

KNOTS, L.I.; DUBOVIK, O.G.

Measurement of the contact difference of potentials by the
condenser-type method. Elektrokhimiia 1 no.5:507-511 My '65.
(MIRA 18:6)

1. Institut elektrokhimii AN SSSR.

S/976/60/034/008/035/039/XX
R015/3063

AUTHORS: Leykis, D. I., Knots, L. L.

TITLE: Detection of Concentration Polarization by Measuring the
Electrode Impedance

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 8,
pp. 1872-1874

TEXT: For kinetic studies of electrodic processes it is important to know whether a concentration polarization takes place at the electrode. This problem is usually solved by measuring the component of the electrode impedance in alternating current at different frequencies, since the concentration polarization at the electrode is equivalent to the corresponding values of capacitance and resistance which are connected in parallel or series. The phase shift is 45°, and the impedance component is a linear function of $1/\sqrt{\omega}$ (ω = angular frequency of alternating current). If the capacitance of the double layer (electrode - electrolyte) or the concentration polarization is high, this function becomes more complicated. The authors have detected a property of the active component of impedance as

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Detection of Concentration Polarization by
Measuring the Electrode Impedance

S/076/60/034/008/035/039/xx
B015/B063

a function of $1/\omega$, which may be used to indicate the presence of concentration polarization. It is assumed that if there is no concentration polarization, any electrode can be simulated in first approximation by one of the circuit diagrams shown in Fig. 1. The impedance of the electrode is given as $Z_o = R_o - jX_o$ (R_o and X_o = active and reactive component, respectively), and the impedance for each diagram of Fig. 1 and the value for $\lim_{\omega \rightarrow 0^0} R$ are obtained as follows:

$$Z_{o(1)} = \frac{R}{1 + (\omega RC)^2} - j \frac{\omega R C}{1 + (\omega RC)^2} = R_{o(1)} - jX_{o(1)}; \quad (1)$$

$$Z_{o(2)} = R - j \frac{1}{\omega C} = R_{o(2)} - jX_{o(2)}; \quad (2)$$

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Detection of Concentration Polarization by
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B015/B063

$$Z_{\omega} = \frac{RC_1}{\omega^2 R^2 C_1^2 C_2 + (C_1 + C_2)^2} = \frac{\omega^2 R C_1 C_2 + \omega^{-2} (C_1 + C_2)}{\omega^2 R^2 C_1^2 C_2 + (C_1 + C_2)^2} = R_{\omega(0)} - i X_{\omega(0)} \quad (3)$$

$$Z_{\omega(0)} = \frac{\omega^2 C_1 C_2 R_1 R_2 (R_1 + R_2) + R_1 C_1^2 + R_2 C_2^2}{\omega^2 (R_1 + R_2)^2 C_1^2 C_2^2 + (C_1 + C_2)^2} \quad (3)$$

$$= \frac{\omega^2 C_1 C_2 (R_1 C_1 + R_2 C_2) + \omega^{-2} (C_1 + C_2)}{\omega^2 (R_1 + R_2)^2 C_1^2 C_2^2 + (C_1 + C_2)^2} = R_{\omega(0)} - i X_{\omega(0)} \quad (4)$$

When an element equivalent to the concentration polarization is introduced into the circuit, the function R_{ω} becomes infinite. Thus, an unlimited increase of R for $\omega = 0$ indicates the presence of concentration polarization, whereas the tendency of R to a limit shows that it is absent. Hence, the dependence of the active component of the electrode impedance R on $1/\omega$ may serve as a criterion for the presence of concentration polarization at the electrode. Professor B. N. Kabanov is thanked for advice. There are 2 figures and 3 references: 2 Soviet and 1 German.

Card 3/4

Detection of Concentration Polarization by
Measuring the Electrode Impedance

S/076/60/034/008/035/039/XX
B015/B063

ASSOCIATION: Akademiya nauk SSSR Institut elektrokhimii
(Academy of Sciences USSR, Institute of Electrochemistry)

SUBMITTED: February 6, 1960

$$\lim_{\omega \rightarrow 0} R_{\text{e}}(\omega) = R_1 \quad (5)$$

$$\lim_{\omega \rightarrow \infty} R_{\text{e}}(\omega) = R_2 \quad (6)$$

$$\lim_{\omega \rightarrow 0} R_{\text{e}}(\omega) = \frac{RC_1^2}{(C_1 + C_2)R} < R_1 \quad (7)$$

$$\lim_{\omega \rightarrow \infty} R_{\text{e}}(\omega) = \frac{R_1 C_1^2}{(C_1 + C_2)^2} + \frac{R_2 C_2^2}{(C_1 + C_2)^2} < R_1 + R_2 \quad (8)$$

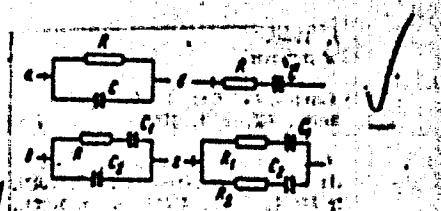


Fig. 1

Fig. 1

Card 4/4

KNOTZ, F.

TESAREK, T.

CZECHOSLOVAKIA

no academic degree indicated

Oncological Research Institute (Vyskumný ustav onkologický), Bratislava;
Director: corresp. member SAV, docent V. THURZO, MD.

Bratislava, Bratislavské Lekarske Listy, No 8, Oct 62, pp 485-489.

"Replacement of the Oesophagus by a Colon as Palliative Surgery for Carcinoma of the Oesophagus"

Co-authors: /

CODAL, A. same as above

JUDIN, J. " " "

KNOTZ, F. " " "

~~KYOTZ, F.~~
~~KYOTZ, F. a DVORAK, F.~~

Problem of prevention of atelectasis. Bratisl. lek. listy 34 no.2!
186-189 F '54.

1. z Chirurgickej kliniky LPSU v Kosiceach, prednosta prof. dr.
J.Krasovicky.

(ATELECTASIS,

*postop., prev.)

(LUNG, surgery,

*postop., atelectasis, prev.)

KNOTZ, F.

Carbon dioxide in anesthesia for children. Rozhl.chir. 34 no.3:
195-197 Mar 55.

1. v Chirurgickej klinike v Kosiciach, prednosta prof. Dr J.
Kasevicky

(CARBON DIOXIDE, anesthesia and analgesia
absorber with readjustment in child.)

(ANESTHESIA, INHALATION

carbon dioxide, absorber with readjustment in child.)

KRATOCHVIL, M.; KNOTZ, F.; JUDIN, J.; GODAL, A.; WINIKER, A.

An experimental study in local (regional) chemotherapy of the
intrahepatically implanted Brown - Pearce tumour in the rabbit.
Neoplasma, Bratislava, 6 no.3:275-279 1959

1. Oncological Research Institute, Bratislava
(NEOPLASMA exper.)
(NITROGEN MUSTARDS pharmacol.)
(LIVER neopl.)

UJHAZY, V.; KNOTZ, F.; GODOVÁ, A.; WINKLER, A.

Experimental study of the relationship between the level of serum glutamic oxaloacetic transaminase (SGOT) and carcinomatous injury of the liver parenchyma. Neoplasma, Bratisl. 7 no.1: 42-47 '60.

1. Oncological Research Institute, Bratislava, CSR.
(LIVER NEOPLASMS exper.)
(TRANSAMINASES blood)

KNOTZ, F.; HANZLOVA, D.; KLIMA, E.

Clinical experiences with fluothane. Preliminary report. Kosohl.
chir. 39 no. 10: 683-687 1960.

1. Vyskumný ústav onkologický v Bratislavě, Krajský ústav
národného zdraví v Trnave, Chirurgická klinika v Košiciach.
(ANESTHETICS)

GODAL, A.; JUDIN, J.; KNOTZ, P.; KRATOCHVIL, M.

A comparative study of the effect of intraperitoneal and intraportal
administrations of TS 160 on the regenerative activity of the rat
liver. Neoplasma 8 no.5:537-547 '61.

1. Oncological Research Institute, Bratislava, Czechoslovakia.
(NITROGEN MUSTARDS pharmacol) (LIVER pharmacol)
(REGENERATION pharmacol)

KNOTZ, F., BELOBOURSKY, B., RIEDEL, J.

Recent trends in clinical anaesthesiology with special regard to the
needs in oncological gynaecology. Bratisl. lek. listy 41 no.7:424-429
'61.

1. Z Vyskumného ústavu onkologického v Bratislavě, riaditeľ doc.
MUDr. V. Thurne.

(GENITALIA FEMALE neopl) (ANESTHESIA)

CZECHOSLOVAKIA

KNOTZ, F.

no academic degree indicated

Oncological Research Institute (Vyskumný ústav onkologický), Bratislava;
Director: corresp. member SAV, docent V. THURZO, MD.

Bratislava, Bratislavské Lekárske Listy, No 8, Oct 62, pp 481-485.

"The Tasks and Problems of Anesthesiology in Clinical Oncology"

CODAL, A.; JUDIN, J.; KNOTZ, F.; TESAREK, T.

Application of endoxan in combination with surgical treatment in cancer of the gastrointestinal tract. Neoplasma 9 no.5:537-541 '62.

1. Oncological Research Institute, Bratislava, CSSR.
(GASTROINTESTINAL NEOPLASMS) (CYCLOPHOSPHAMIDES)

KNOTZ, P.

Tasks and problems of anaesthesiology in clinical oncology. Bratisl.
Lek. Listy 12 no. 8:481-485 '62.

1. z Vyskumného ústavu onkologického v Bratislavě, riaditeľ člen
koresp. SAV doc. MUDr. V. Thurzo.
(NEOPLASMS) (ANESTHESIA)

SIRACKA, E.; KNOTZ, F.; SANDOR, L.

An attempt to increase the radiosensitivity of experimental tumours by inducing a state of hypermetabolism. Neoplasma 10 no.3:231-235 '63.

1. Institute of Cancer Research, Bratislava, CSSR.
 (SARCOMA, HOSHIDA) (SARCOMA, JENSEN)
 (TRIIODOTHYRONINE) (METABOLISM)
 (RADIATION EFFECTS)

GODAL,A.; TESAREK,T.; JUDIN,J.; KNOTZ,F.

The use of Degranol in combination with surgical treatment in
cancer of gastrointestinal tract. Neoplasma 11 no.1:89-93 '64.

1. Oncological Research Institute, Bratislava, Czechoslovakia.

BUROS, M.; MOLNAROVA, K.; KADLIC, T.; KNOTZ, J.; ONDROUCHOVA, D.

Terminology of acid-base equilibrium. Roshl. chir. 43 no. 6:
353-358 Je'64

1. Statne sanatorium v Bratislave (riaditeľ: MUDr. J. Rusnák, CSc.); I. chirurgicka klinika Lekarskej fakulty UK [University Komenskeho] v Bratislave (prednosta: prof. dr. K. Černák); Onkologicky výskumný ústav v Bratislave (riaditeľ: akademik V. Thurzo); Klinika chirurgie detskeho veku Lekarskej fakulty UK [University Komenskeho] v Bratislave (prednosta: prof. dr. M. Kratochvíl, CSc.).

KNOTZOVA, K.

WINKLER, Alojs; UJHAZY, Vilim; KNOTZOVA, Kornelia; SORM, Frantisek

The level of 6-azouracile in the serum of rats. *Neoplasma*, Bratisl.
5 no. 2:97-100 1958.

1. Oncological Research Institute, Bratislava. Chemical Institute of
the Czechoslovak Academy of Sciences, Praha. Authors' address: Dr. A.
Winkler and co-workers, Bratislava, ul. Cs. armady 17; akademik F. Sorm,
Praha, Chemicky ustav CKAV.

(URACIL, antag.

6-azouracil, retention in blood in rabbits)

(CYTOTOXIC DRUGS, in blood,

6-azouracil, retention in rabbits)

KNOURKOV, Iva; MACK, Zdenek, ins.

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J1 '69.

BOHANNES, M.; GROMBIR, J.; GRUNNER, O.; KNOZ, J.; STRNAD, A.; VALIHRACH, J.

Ornithosis neuroinfection. Cas. lek. cesk. 99 no. 39:1238-1242 23 8 '60.

1. Neurologické oddelení OUZ Uh. Hradiste, prednosta prim. dr.
A. Strnad. KME v Gottwaldově, oddelení v Uh. Hradisti, virologická
laboratoř, prednosta prim. dr. J. Valihrach.
(NEUROLOGY)
(ORNITHOSIS compl)

KNUBOVETS, R.O. I MASLENNIKOV, B.M.

Adsorption of flotation reagents by minerals studied by infrared
spectroscopy. Dokl. AN SSSR 164 no.2:387-389 S '65.
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1. Submitted March 9, 1965.

KNUBOVETS, S.Ya.

X-ray manometry in the evaluation of indications for choledochotomy.
Choledochoscopy. Mauch. trudy Kaz. gos. med. inst. 14:453-454 '64.
(MIRA 18:9)

1. Kafedra fakul'tetskoy khirurgii (zav. - prof. I.F.Kharitonov)
Kazanskogo meditsinskogo instituta.

KNUBOVETS, S. Ya.

Roentgenomametric studies in biliary tract surgery. Kas. med.
zhar. no.5:22-26 S-0'63 (MIRA 16:12)

1. Kafedra fakul'tetskoy khirurgii (nav. - prof. I.F.Kharitonov)
Kazanskogo meditsinskogo instituta.

KNUBOVETS, Ya. S.

"A Hinged Instrument for Immobilizing Occlusion Molds during an Oral Determination of the Occlusion Curve," Stomatologiya, No. 1, 1948.

Kazan' Stomatol. Inst.

KHUBOVETS, Ya.S., kandidat meditsinskikh nauk.

Immobilizing loose teeth in amphodontosis. Stomatologija no.1:
54-55 Ja-F '54. (MIRA 7:1)

1. Is kafedry stomatologii (zaveduyushchiy - professor P.N. Kartashov) Kasanskogo Gosudarstvennogo instituta dlya usovrshenstvovaniya vrachey (direktor - doktor meditsinskikh nauk I.V. Danilov). (Teeth-diseases)

KNUBOVETS, Ya.S.

Some structural changes in the alveolar process and the teeth of the lower jaw due to the compression of the inferior alveolar nerve in dogs. Nauch. trudy Kaz. gos. med. inst. 14:215-216 '64.
(MIRA 18:9)

1. Kafedra ortopedicheskoy stomatologii (zav. - prof. I.M. Okaman) Kazanskogo meditsinskogo instituta.

KNUBOVETS, Ya.S., docent

Changes in the mineral metabolism in the teeth and in the alveolar process of the mandible following stimulation of the nerves of the masticatory muscles. Vop. obshchei stom. 17:86-89 '64.

Method of the fixation of prosthesis in total absence of teeth. Ibid. 104-106 (MIRA 18:11)

OKEMAN, I.M., prof.; KROBOUTE, Yves. document

*Manuals and textbooks on orthopedic stomatology. Tops
of orthopedic stom. 27:113-116 '64.*

(MIRA 18-11)

KHUBOVETS, Ya.S., kandidat meditsinskikh nauk

Method of determining central occlusion of the teeth. Stomatologiya
no.2:51-51 Mr-4p '55. (MIRA 8:5)

1. Is kafedry stomatologii (zav. prof. P.N.Kartashov) Kazanskogo
gosudarstvennogo instituta usovershenstvovaniya vrachey imeni V.I.
Lenina (dir. prof. I.V.Danilov).

(~~TMTH~~,

detern. of central occlusion)

KOPEYKIN, Vadim Nikolayevich; KULOVETS, Yakov Samoilovich;
KURLYANDSKIY Veniamin Tur'yevich; OKSMAN, Isaak
Mikhaylovich; KALONTAROV, D.Ye., kand. med. nauk, red.;
KOROLEV, A.V., tekhn. red.

[Technique of prosthodontics] Zuboprotexnicheskaya tekhnika. [By]
V.N.Kopeikin i dr. Moskva, Izd-vo "Meditaina," 1964. 343 p.
(MIRA 17:4)

KNUFFY, Z.

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(AGRARTUDOMANY, Vol. 6, No. 6, June 1954, Budapest, Hungary)

SO: Monthly List of East European Accessions, (EAL), LC, Vol. 3, No. 12,
Dec. 1954, Unal.

KHONYANTS, I. A. AND YEVORAPOV, Yu. P.

"2-Methyl- α -Naphthindol and Certain of its Transformations," Zhur Obshch. Khim., 10,
No. 19-20, 1940, p. 1113, Laboratory of Organic Chemistry, Military Academy of Chemical Defense
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Report U-1612, 3 Jan. 1952

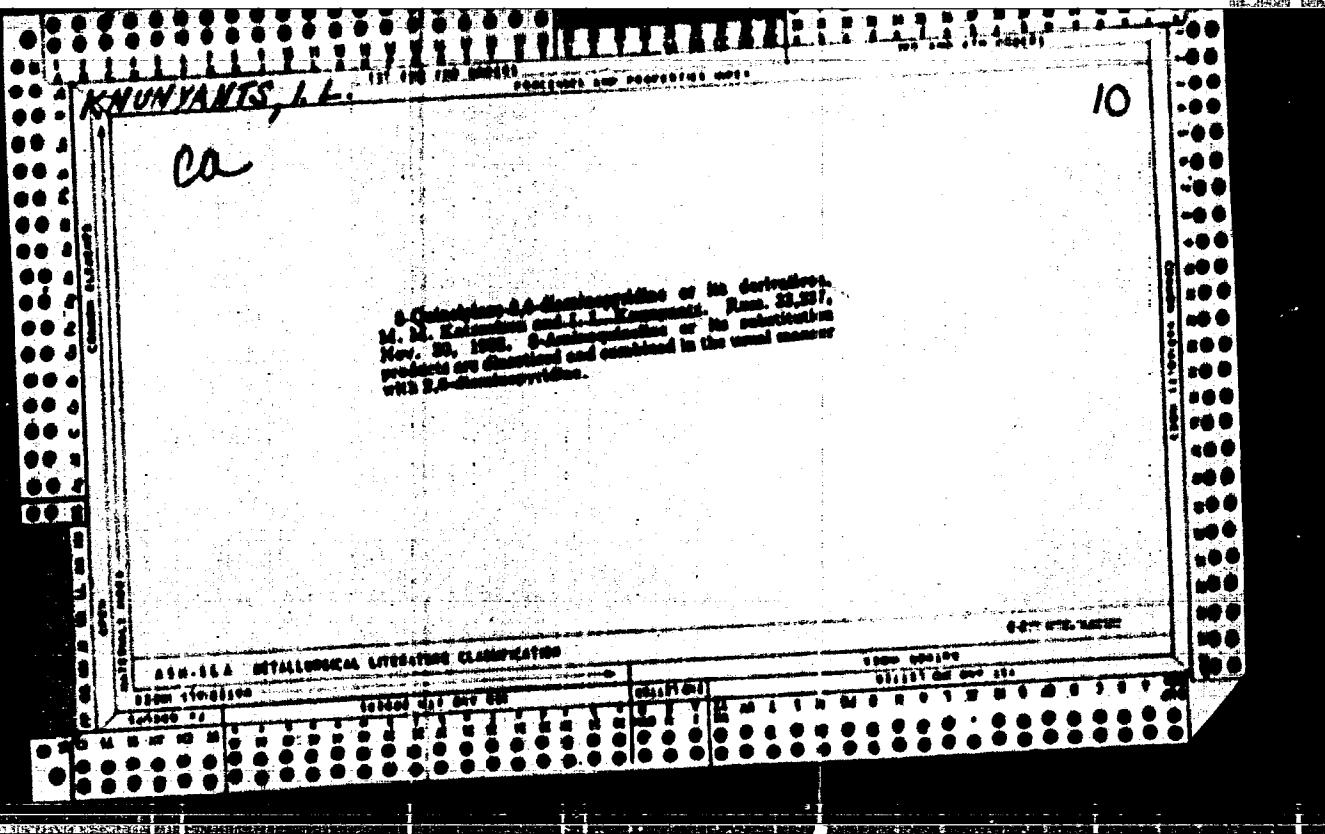
KMUNYANTS, I., akademik; FEDOROVICH, M.

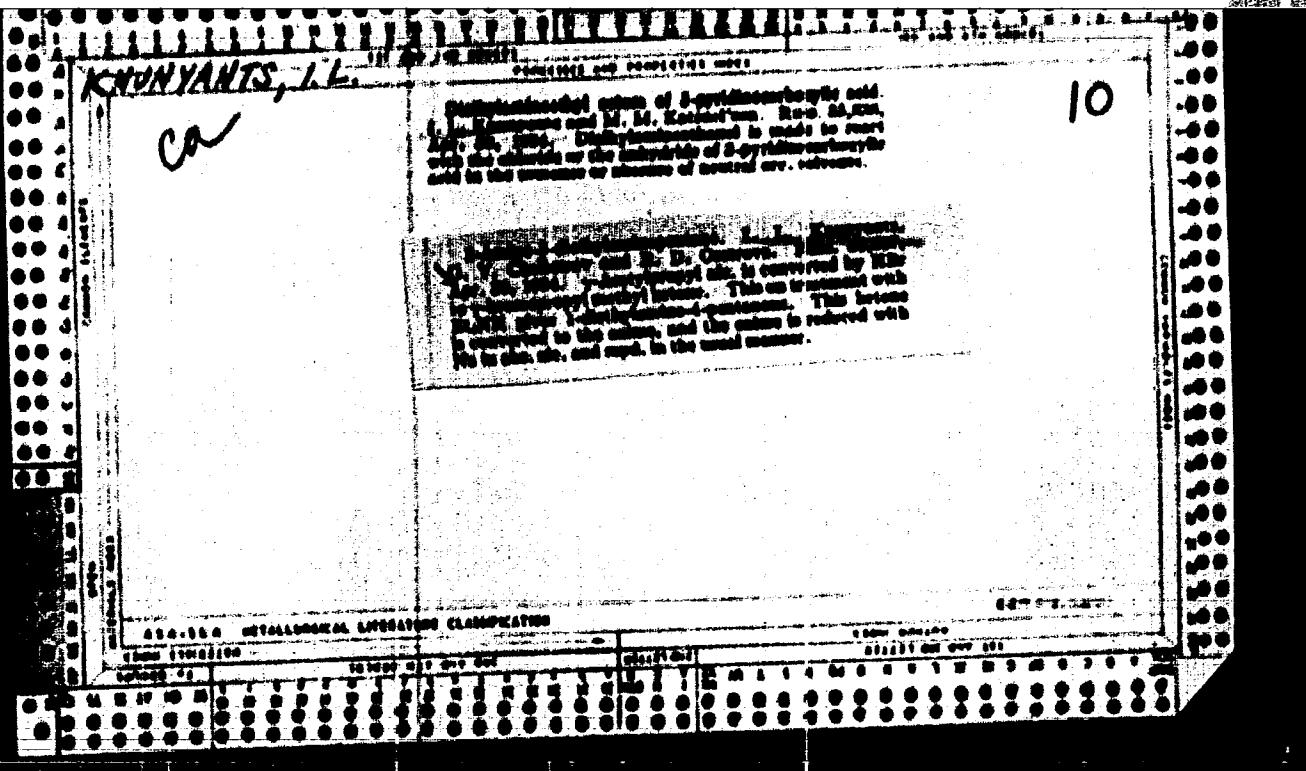
"Economics of the synthetic materials industry" by N.P.Fedorenko.
Reviewed by I.Kmuniants, M.Fedorovich. Vop. ekon. no.8:120-122
Ag '62. (MIRA 15:8)
(Synthetic products) (Fedorenko, N.P.)

KNUNYANTS, I.D.; DYATKIN, B.L.; GERMAN, L.S.

Reactions of perfluoroacrylonitrile. Khim. i prom. 3 no. 6
828-829 '58. (MIRA 12:2)

1. Institut elementoorganicheskikh soedineniy Ak SSSR.
(acrylonitrile)





KNUNYANTS, L.L.C.

17

100-110. METALLURGICAL LITERATURE CLASSIFICATION

卷之三

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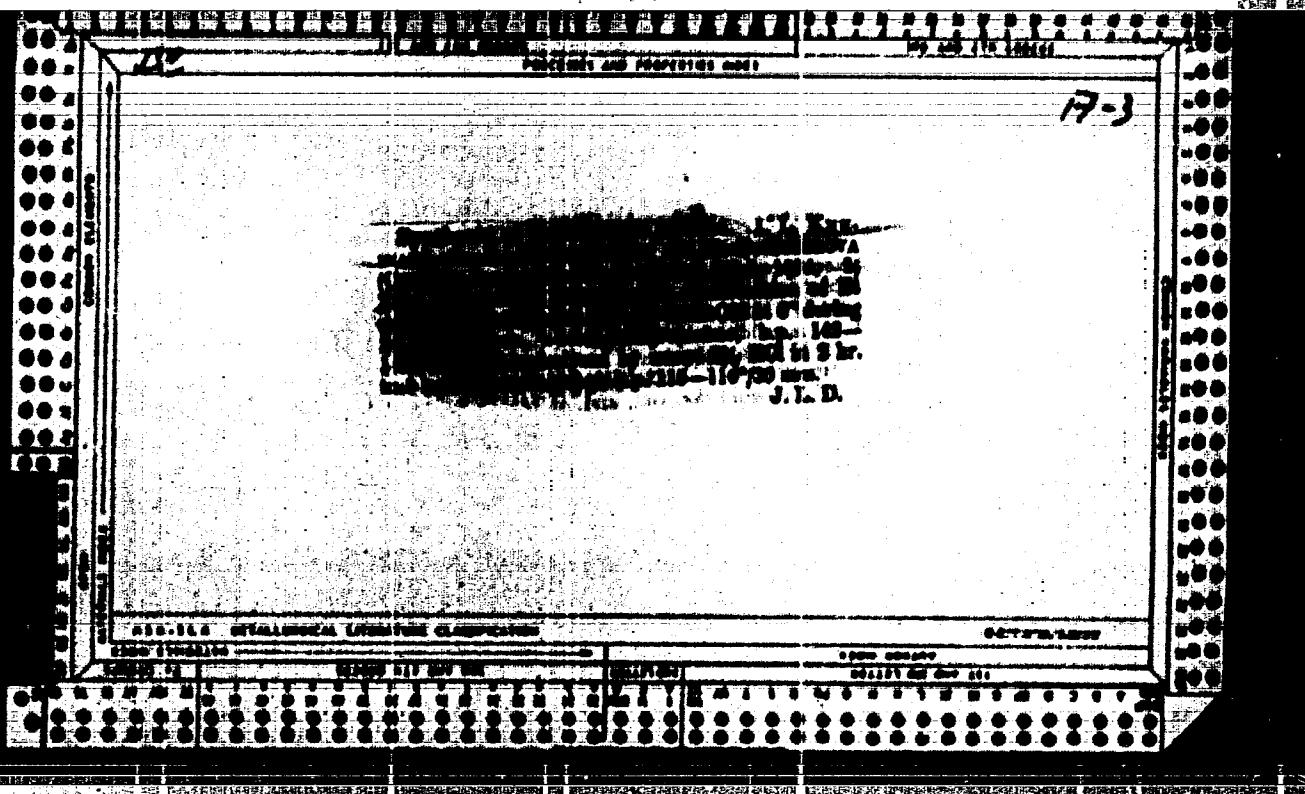
III. $2:4:1$ - $\text{C}_6\text{H}_5(\text{NH}_2)_2$ affords $2:4:1$ - $\text{C}_6\text{H}_5\text{Cl}_2\text{N}_2$ by the Sandmeyer reaction, and this with K_2CrO_4 yields $2:4:1$ - $\text{C}_6\text{H}_5\text{Cl}_2\text{NO}_2\text{N}_2$, from which, by combination with $\text{p-NH}_2\text{-C}_6\text{H}_4\text{CO}_2\text{Na}$, followed by ring-closure (PbCl_4), $2:4$ - $\text{p-NH}_2\text{-2-methoxybenzidine}$ (V) is obtained. (V), on condensation in PhNO_2 with (III), affords 6-*chloro-2,2-dimethylbenzo-6-methoxybenzylbenzo-2-methoxybenzidine*, identical with Bayer's "Aebelin." R. T.

APPROVED FOR RELEASE: 06/19/2000

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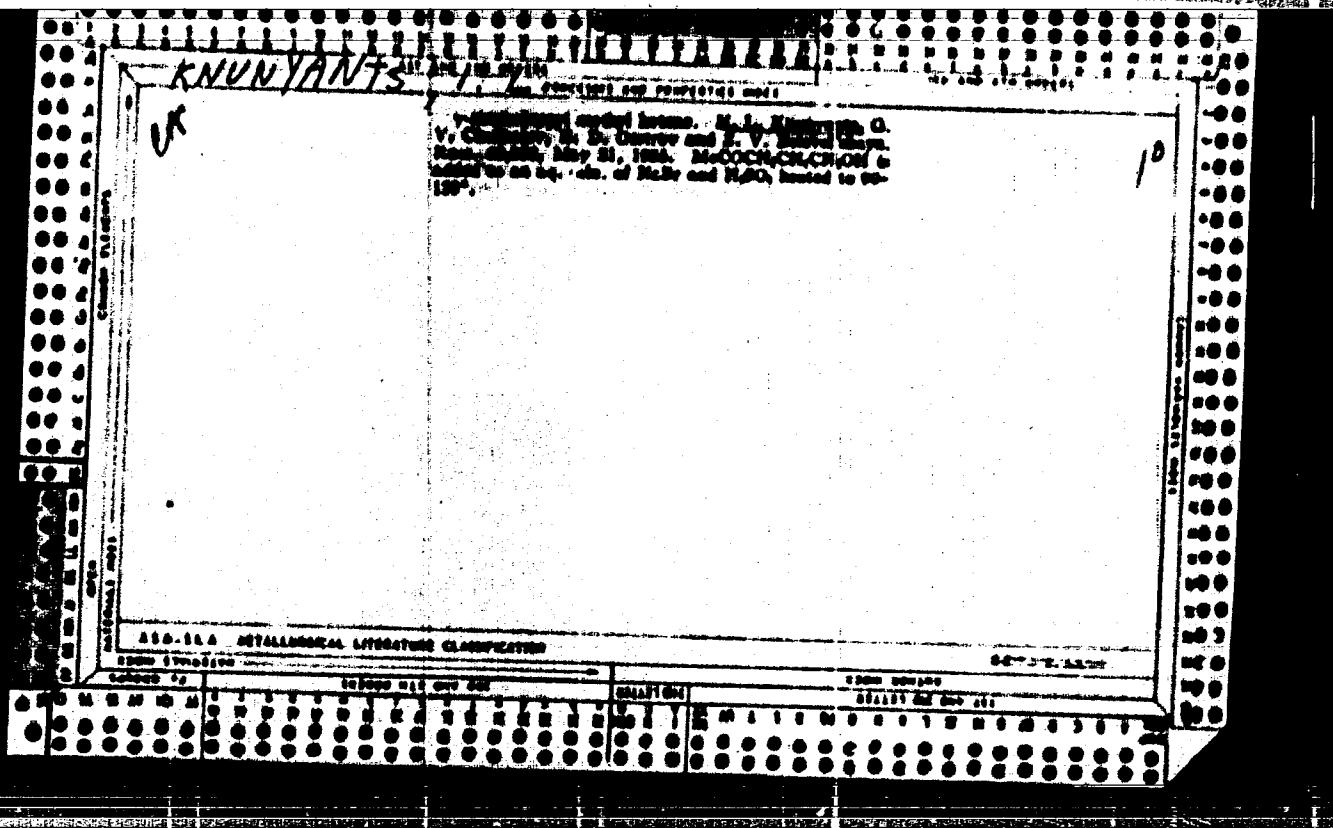
"APPROVED FOR RELEASE: 06/19/2000

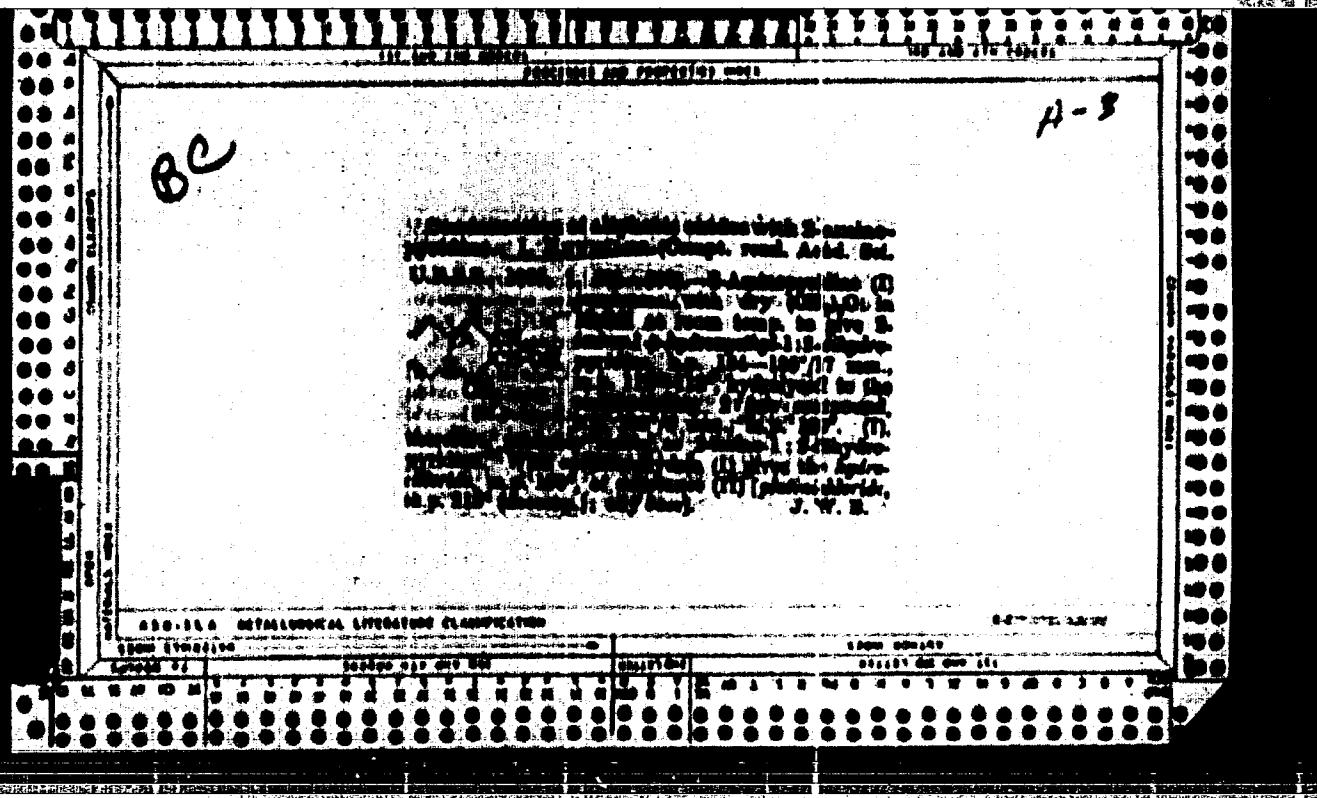
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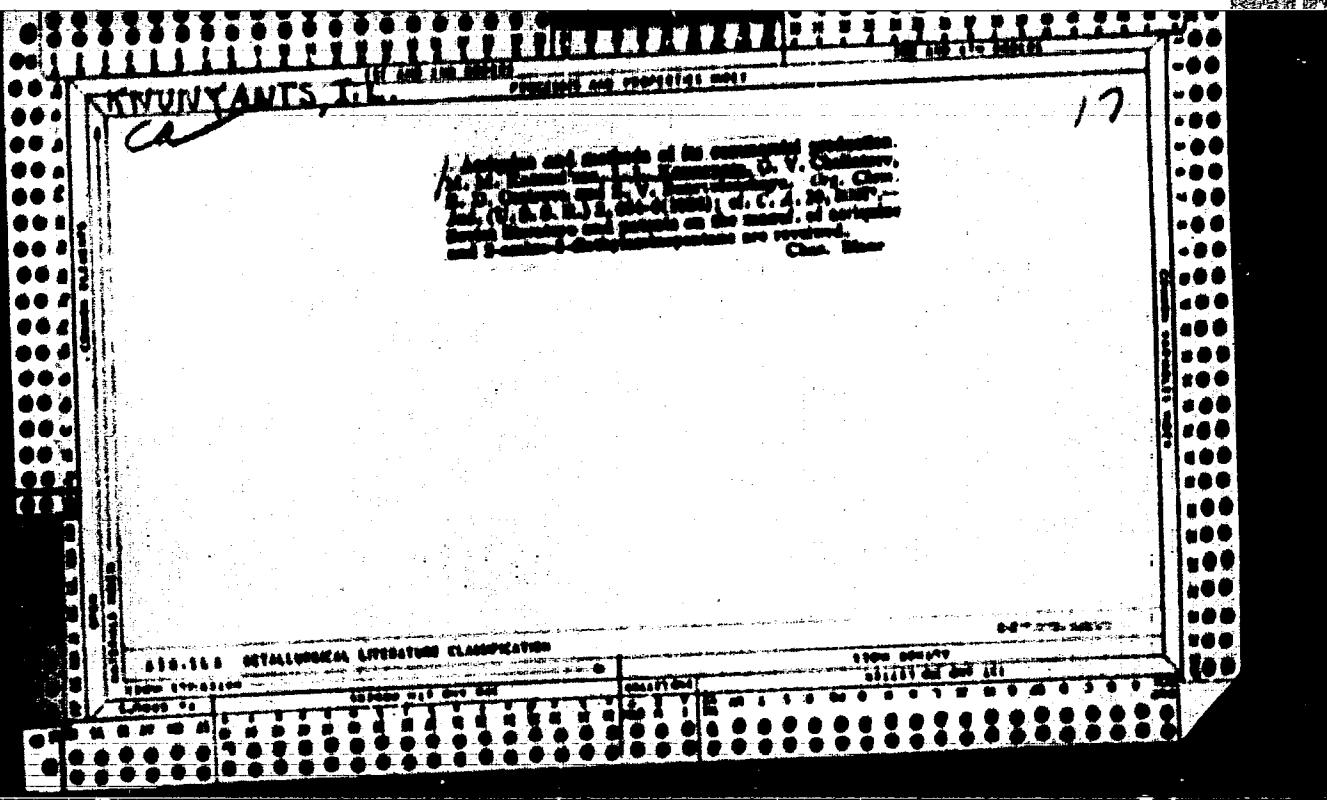
KNUNYANTS, H.

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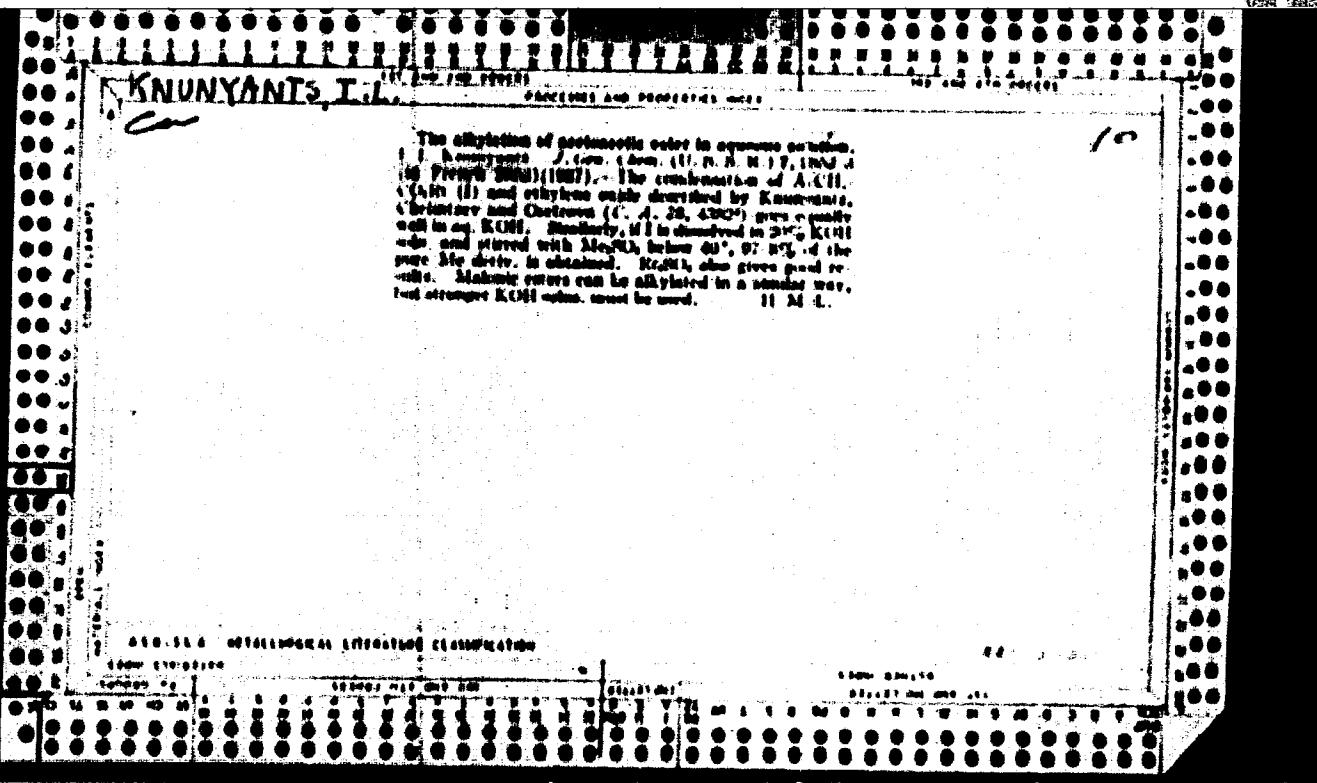
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KUNYANTS, I.L.

Contributed and processed notes
Workers in the field of antimicrobial substances
of hydroxymethyl/amine derivatives of the benzothiophene
series. I. I. Kunyants and S. V. Nefedovskaya
J. Russ. Chem. (U.S.S.R.) 1957, 31, 1779. — β -Nitro-4-nitroamino-acetamide (I), m. 101-2°.
When I is boiled with acid or alkali, II is split off hydrolytically. When I is oxidized with $K_2Cr_2O_7$, it forms
 β -methoxy- γ -nitro- β -methylphenylcarbamide, m. 120-30°. With
 $NaCN$ and HCl , this is reduced to the corresponding
amide, m. 96-8° (H_2O soln, m. 214-18°), which reacts with
 $Li(N(C_2H_5)_2)_2HCl$ (III) to give β -methoxy- γ - γ -diethylamino- β -methylphenylcarbamide (IV), m. 210-10°
(H_2O soln, m. 180-7°). Methaniminotriazine and
 H_2NCl give β -nitro- β -formamido-acetamide, m. 130-1°,
which with $NaCN$ gives β -nitro- β -methylphenylcarbamide, m.
120-2°. This is hydrolyzed by HCl but not by alkalis.
It is not oxidized by $K_2Cr_2O_7$ and so cannot be used to
obtain a benzothiophene deriv. β -Nitro-4-nitroamino-acetamide
and $(CO_2Et)_2$ give β -methoxy- α -adipoyl-ester, m.
137°, which with $NaCN$ gives β -methoxy- α -adipoyl-ester,
m. 211°. Acetone gives the oxal, m. 122°, which is
oxidized by $K_2Cr_2O_7$ to β -methoxy- γ -nitrophenylcarbamide,
 β -carboxylic acid. When this is heated with H_2O it
gives β -methoxy- γ -nitroacetamide, m. 131°. The
corresponding amide, m. 130° (H_2O soln, m. 208-11°), is ob-
tained by reduction and in turn reacts with III to form
 β -methoxy- γ - γ -diethylamino- β -methylphenylcarbamide, m.
213-12° (IV). Although III and IV clearly resemble
their epoxidized analogs in chem. and phys. properties,
they have no antimicrobial action. I. M. L.

116-116-6 METALLURICAL LITERATURE CLASSIFICATION

10000	100000	1000000	10000000	100000000

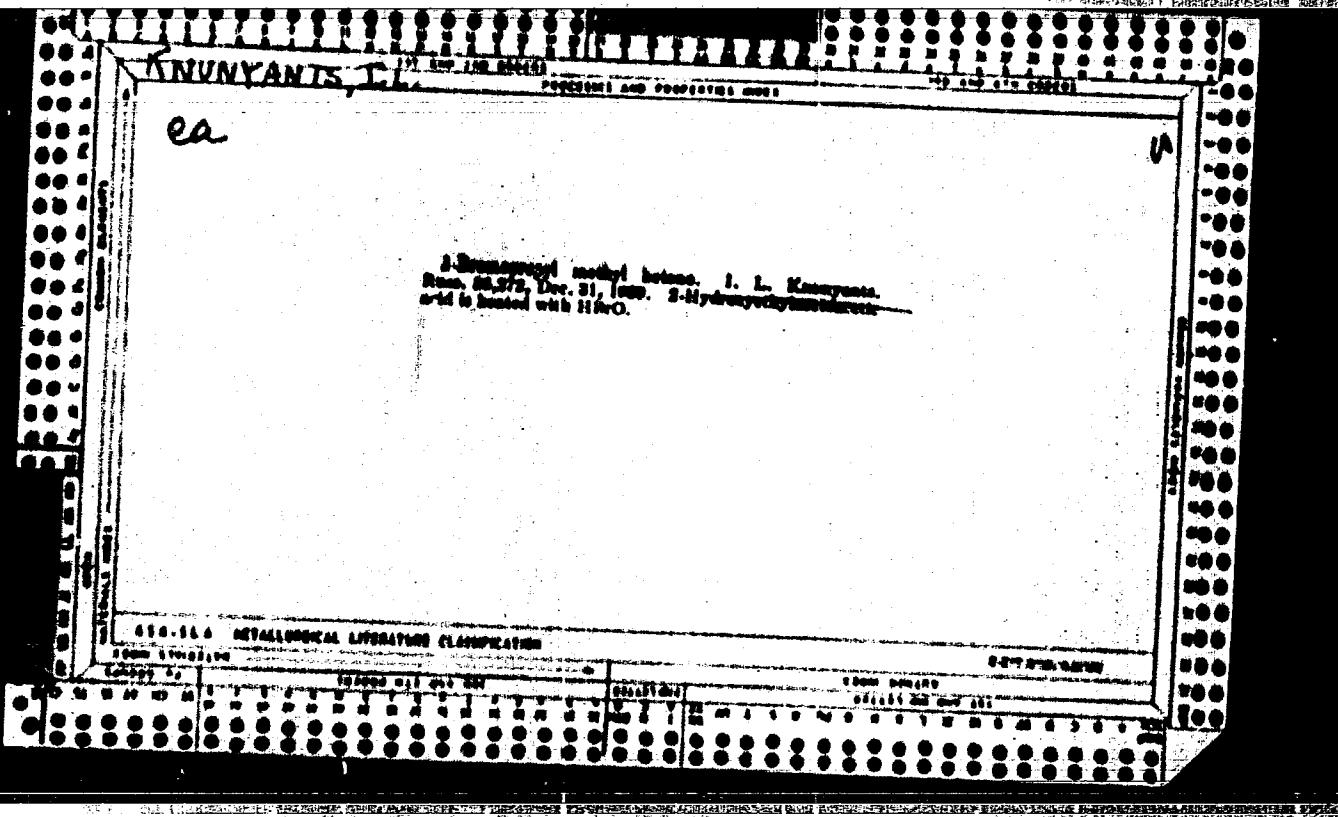


XIV NYANTS, I. I.

Studies in the field of antimicrobial substances. II. Derivatives of isopropyl-*o*-nitrobenzoate and *o*-nitrobenzylbenzoate. *J. Gen. Chem. (U. S. S. R.)* 7, 2000-3 (in French transl.) (1947); *J. C. A.* 32, 2110. — A mixture of 11 g. chloroformate and 6-methoxy-*o*-nitrobenzylbenzoate was refluxed at 170-180° for 8 hrs. The melt was dissolved in H₂O, made alk. with NaH₄I and titrd. with HgCl₂. The residue from the HgCl₂ was dried, at 2 mm., giving 8.0 g. of an oil. This dissolved in dil. aq. with the addition of aq. HCl gave the HCl salt of 6-methoxy-*o*-nitrobenzylbenzoate, m. 140-8°. An emulsion (10 g.) was added, with stirring, to 20 g. 2-methoxy-4,6-dinitrobenzoic acid in 100 g. of pyridine, PMTH on a water bath. After heating for an initial 2 hrs., the reaction mass was poured into dil. NaH₄I and titrd. with HgCl₂. The HgCl₂ salt, was titrd. with 5% aq. AgCl₂, the rest was dissolved with HgCl₂ and titrd. with HgO, and the HgO titrd., giving 2-methoxy-*o*-nitro-*o*-nitrobenzylbenzoate, m. 140° (HCl salt, m. 160° (decomp.)). A mixture of 4.8 g. 7-nitro-*o*-methoxy-*o*-nitrobenzylbenzoate and 6.8 g. chloroformate when heated at 180-90° for 10 hrs. and purified as under the 1st compd. gave about 3.8 g. 5-methoxy-7-nitro-*o*-nitrobenzylbenzoate; the HCl salt m. 156-161°. While the first 2 compounds have a strong antimicrobial action, the latter is quite active, has none. This shows again that the isopropylbenzoate does not impart antimicrobial action to a salt, even to the presence of effective substituents. The prep. of antimicrobial from chloroformate and aq. NH₄OH (Gert. pat. 601,167; 1947, 1948, yields 1. Anisomethylbenzoate, bp. 140-150°, can be isolated in 20-25% yield by heating an emulsion, m. 100° of chloroformate and 10 potassium carbonate at 170-180° for 4 hrs. and decomposing the hydroxybenzoate with 6 vols. of aq. HgCl₂ and HCl by heating for 12 hrs. *Chem. Russ.*

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KNUNYANTS, 1

CA

Thisaryl derivatives of primary amines. (The synthesis of aryl carbocyanine dyes). I. L. Kurnyanov and L. V. Korovinova. *J. Russ. Chem. (U. R. S. S.)* 9, 567-70 (1950).—Picric-NHAr heated with P_2O_5 in CO_2 gives 50% picryl carbocyanine, m. 71°. When this is reduced with $SnCl_4$ it gives 100% aryl carbocyanine. $S-N$ esterified with MeI it gives 100% N -methylcarbocyanine. $S-N$ esterified with MeI it gives 100% N -methylcarbocyanine. $S-N$ esterified with $SnCl_4$ it gives 94% of the free base, m. 118-9°, d₄²⁰ 1.4672, m. 1.4202. M . R . calcd. 341.3; M . R . found, 346.6. When this is heated with MeI at -10° for 2 hrs. and then allowed to stand at room temp. for 2.5 days, it gives 30% of N -methylcarbocyanine. $S-N$ esterified with MeI (III), m. 121°. By a similar series of reactions starting from N -Me-NHAr are obtained 63% thio-carbocyanine, m. 101°, 100% N -methylcarbocyanine, $S-N$ esterified (III), m. 110°, 90.5% of the free base, m. 122-3°, d₄²⁰ 0.918, M . R . 342, and the carbocyanide (III), a hygroscopic solid. I and II combine with $HC(OEt)_2$, (III), anisole, benzaldehyde, and (IV), anisolebenzaldehyde and (V) and $Me_2NClLiC_6H_5$ (VI) in the presence of acetate to give aryl carbocyanine dyes which are similar to the analogous dyes prepared from the anhydride. The compd. from I and III is yellow and has an absorption max. at 430 m μ . I and IV give a red dye, absorption max. 460 m μ , bleaching max. for an Ag^+ solution at 410 m μ . I and V give a blue-green dye, absorption max. 460 m μ , bleaching max. 470 m μ . This max. considerably changes to a violet dye, absorption max. 530 m μ , bleaching max. 560 m μ , but sometimes, for unexplained reasons, this change does not occur. I and VI give an orange-red dye, absorption max. 530 m μ . Similarly II and III give a yellow dye, absorption max. 460 m μ , bleaching max. 500 m μ , and II and VI give a clear orange-red dye with absorption max. 510 m μ . M. M. Lerister

Lab. of Organic
Chem., Military
Acad. of Chemical
Defence of the
Red Army im.
Voroshilov,
Moscow.

610.340 METALLURGICAL LITERATURE

KNURYANTS, I. L.

"1-Phenyl-3-Methylpyrazolone," T. G. Aleksandrov, B. M. Dubinin, I. L. Knuryants, and G. V. Chelintsev. Russ. 57,506, July 31, 1940. $\text{PhNHNH}_2 \cdot \text{HCl}$ is treated with the reaction product of AcOEt and Na .

KNIGHTS, ET

24

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These 3 derivatives of 2-aminopyridine, $\text{C}_6\text{H}_5\text{NHC}_6\text{H}_4\text{NH}_2$, were made by J. A. Kotterman. *J. Gen. Chem.* 16, 1339-74 (1946); *id. C. A.* 41, 2611. — When 2-aminopyridine is reduced in solution with PdCl_2 , it gives 2,6-diaminopyridine (II), m. p. 103°. This is 2,6-diaminopyridine (II), m. p. 103°, given by the R.D.A. and (II), m. p. 103°, given by the 3,4-dihydro form of 2,6-diaminopyridine ($\text{C}_6\text{H}_5\text{NHC}_6\text{H}_4\text{NH}_2$). Since no isomer is formed in the reduction, (II) does not enter in a tautometric form and the 3,4-dihydro form of (II) cannot be established by $\text{KCN}(\text{CN})_2$ or NaBH_4 . 2-Aminopyridine and PdCl_2 give 2,6-diaminopyridine, m. p. 133-14°. — *J. Gen. Chem.* 16, 1339-74 (1946); *id. C. A.* 41, 2611. — When 2-aminopyridine is reduced in solution with PdCl_2 , it gives 2,6-diaminopyridine (II), m. p. 103°. This is 2,6-diaminopyridine (II), m. p. 103°, given by the R.D.A. and (II), m. p. 103°, given by the 3,4-dihydro form of 2,6-diaminopyridine ($\text{C}_6\text{H}_5\text{NHC}_6\text{H}_4\text{NH}_2$). Since no isomer is formed in the reduction, (II) does not enter in a tautometric form and the 3,4-dihydro form of (II) cannot be established by $\text{KCN}(\text{CN})_2$ or NaBH_4 . 2-Aminopyridine and PdCl_2 give 2,6-diaminopyridine, m. p. 133-14°. — *J. Gen. Chem.* 16, 1339-74 (1946); *id. C. A.* 41, 2611.

U.S. Patent and Trademark Office
Serial No. 155-345. N. M. Laboratory
Institute for Investigation and Synthesis Plant and Animal Products, Moscow
Inst. Org. Chem., AS USSR

APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000723320020-2"

The synthesis of new antimicrobial compounds is described. 1. L. Berman and Z. Y. Berman, *J. Org. Chem.* (1973) 38, 1614-17 (1973). A soln. of 20 g. CuBr_2 and 3 g. K_2CO_3 in $\text{CHCl}_3\text{-CO}_2$ (40:1) in 20 g. CaCO_3 was heated in an oil bath at 120-125° for 2 hrs. The resulting red mass was twice washed with 200 cc. boiling Me_2CO . The liquid residue was washed with water and Me_2CO . The liquid residue was washed with water and treated with dil. HCl . The total yield of β -methoxy- α -methyl- α -dialkylaminomethyl- β -carboxylic acid (II), m. 220-2°, was 40%. A soln. of 20 g. I and 140 cc. POCl_3 was heated in an oil bath at 120-125° for 4-5 hrs. The excess of POCl_3 was dried, and the residue was poured into 10% NaOH aq. The ppt. was filtered, washed with water, dried and recrystd. from aq. CaH_2 . The yield of β -methoxy- α -dialkylaminomethyl- α -dialkylcarboxylic acid (III), m. 273-3°, was 50-55%. Heating II with a large excess of PhONa at 80° for 40 min., followed by the removal of PhONa and treatment of the reaction mixt. with a large amt. of ether and then with 20% NaOH , yielded 40-50% β -methoxy- α -dialkylaminomethyl- α -dialkylcarboxylic acid (IV). A soln. of 3 g. III in CH_2Cl_2 was treated with 20 g. $\text{MeCH}(\text{NH}_2)_2\text{CH}_2\text{Cl}_2$, was heated at 120-125° for 1 hr. The reaction mixt. was treated with dil. AcOH , filtered out and the filtrate was neutralized with NaOH . The yield of β -methoxy- α -dialkylaminomethyl- α -dialkylaminomethyl- β -carboxylic acid (V), "antimycin," was 70%. A soln. of 10 g. IV in 70 cc. HCl (4:1, 1:10) was slowly treated with 20 cc. NaCl in 60 cc. HCl . The mixt. was ext. with 20 cc. NaCl in 60 cc. HCl . The ppt. was ext. with 20 cc. NaCl in 60 cc. HCl . The ppt. was filtered out, dissolved in water and treated with a ppt. of AgNO_3 .

large excess of NaOH aq. The wtd. base was ext. with ether and the ppt. was dried with K_2CO_3 . The ppt. was neutralized with HCl in ether, while cooling and the ppt. formed was filtered out and washed with dry ether and recrystd. from aq., yielding β -methoxy- α -methyl- α -dialkylaminomethyl- α -methylaminomethyl- β -carboxylic acid (VI), m. 244-7°. The ether soln. of the base prep. from V (6 g.) was dried with anhyd. K_2CO_3 , filtered and the ether was dried. (Finally, no ether). The residue was mixed with 3 g. $\text{CH}_3\text{C}(\text{CH}_3)_2\text{NCl}_2\text{-HCl}$ and heated in an oil bath at 120-125° for 3 hrs. and at 120-125° for 3 hrs. The reaction mixt. was dissolved in hot water, decomposed with dil. acid and ext. with ether. The ext. was treated with HCl in ether. The resulting β -methoxy- α - β -dialkylaminomethyl- α -dialkylaminomethyl- β -carboxylic acid (VII), m. 181-4°, aq. in water and aq. and not very sol. in Me_2CO , C_6H_6 and petr. ether, is hygroscopic. The antimicrobial effect of IV was very weak, whereas V and VII were not active at all. Conclusion: Introduction of a NO_2 group into the 4-position of the above acid decreased the antimicrobial effect and NO_2 and dialkylaminomethylcarboxylic groups (in the same position) destroyed this effect entirely. A. A. P.

VENOMANTS. E. -

TEA

Pyridine, quinoline, and thiophene. I. I. Krasnaya, U.S.S.R. No. 46,742, Pub. No. 38, 1941. These nitrogen compounds are obtained by passing their benzene over a hydrogenated catalyst or activated C in an atm. of H₂. The process is carried out at an elevated temp. Any of the hydrogenation catalysts can be used, e.g., powdered Ni, its oxide, the oxides of Al, Cr, or Cu, powdered metals of the Pt group, or activated C. Pyridine, quinoline, and thiophene can also be obtained by passing the corresponding benzene through a red-hot tube. M. Hesse

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SCHOLARSHIP

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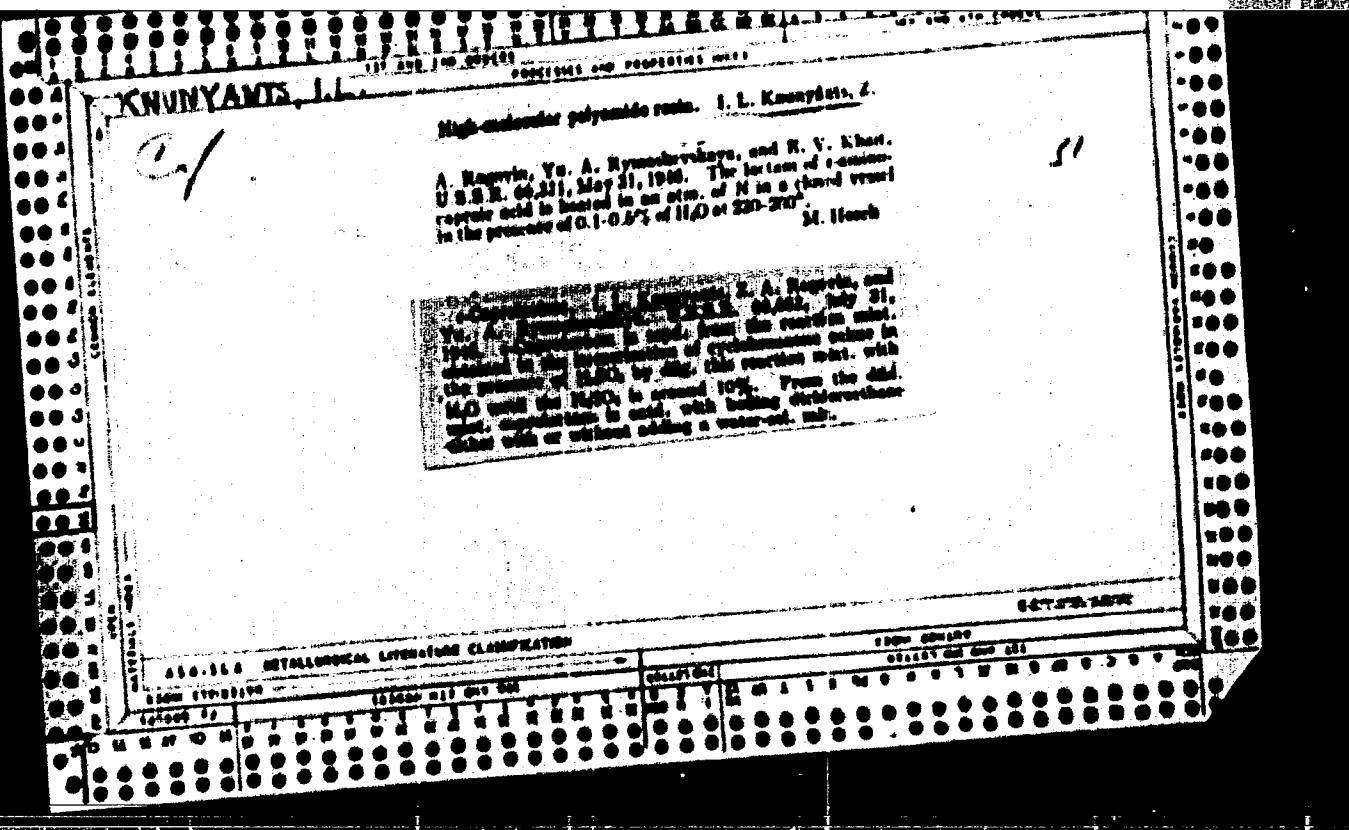
NUNYANIS 1

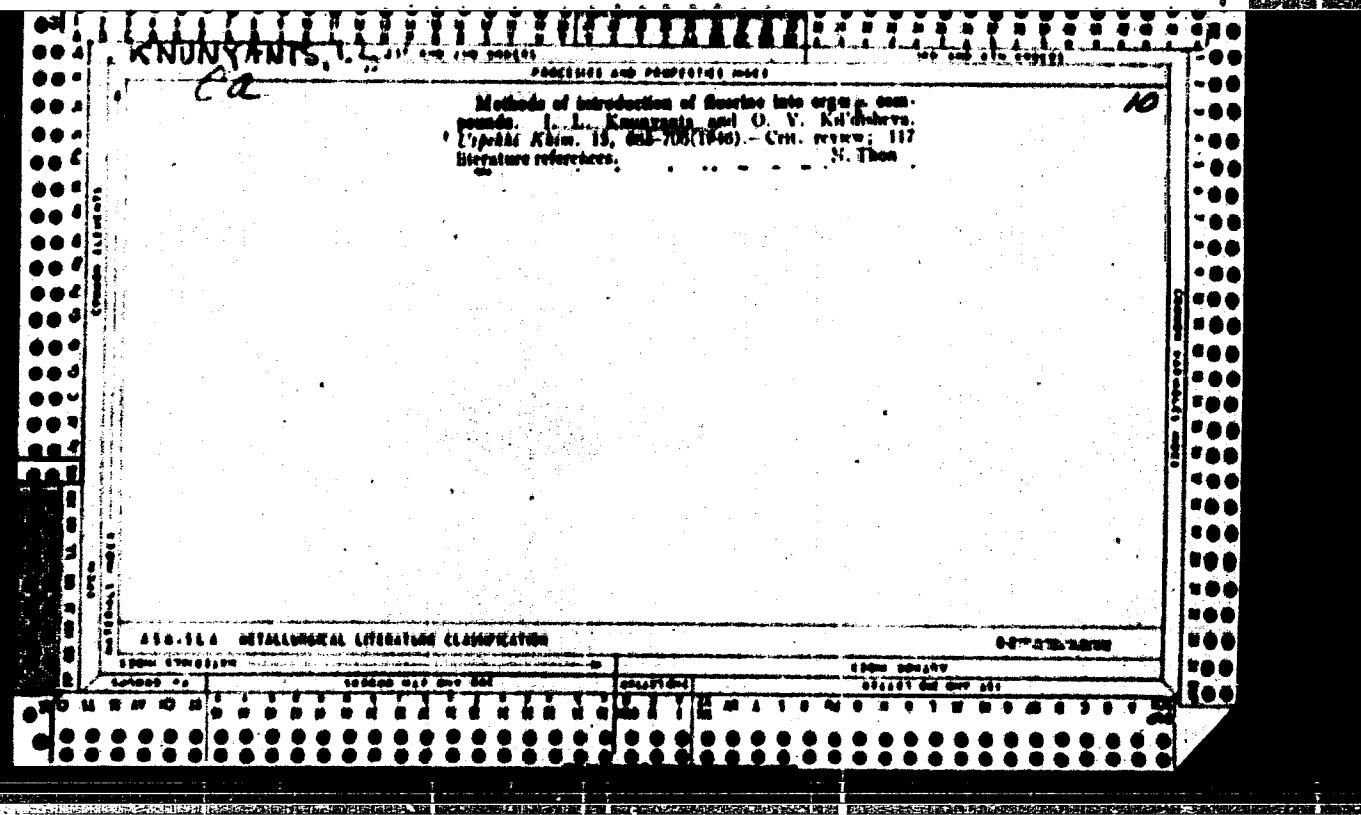
Synthesis in the field of new antineoplastic compounds. Derivatives of phenanthroimidazole. I. I. Kandappill and T. Ya. Kefel. *J. Gen. Chem. (U.S.S.R.)* 15, 628-34 (1945) (English summary).—The reaction of some imidazoles with diisopropenylpyridinium chloride leads to an sym. amine deriv. of phenanthroimidazole, while the reaction with the pyridine homolog gives the symmetrially substituted dyes. The reaction products obtained from 6-methoxy-4-aminopyridine with pyridine homocyanide, analogous to certain antineoplastic and differing from them in nature, along the C chain between the amino group, were not active antineoplastic. 1-(2,4-Diisopropenyl)pyridinium chloride (2.0 g.) and 3.0 g. 6-methoxy-4-aminopyridine were treated with 15 cc. EtOH and refluxed for 30 min., after standing 1 hr. there formed a dark-red crystal, m.p. which was filtered off and washed with EtOH to give 1-(2,4-methoxy-6-aminopyridine)-2,4-pyridinediyl-3,6-dihydro- β -phenanthroimidazole-HCl, m. 123-4° (from MeOH). A similar reaction, using 6-aminopyridine gave N-(2-methoxy-6-aminopyridine)-2,4-dihydro- β -phenanthroimidazole-HCl, violet-red, m. 122-3° (from MeOH); repetition of the latter reaction with heating for 3.0 hrs. resulted in removal of the initial ppt., with formation of a green min.1 evap., of this, evap. of the residue with Me₂CO, and evap. of the residue from CHCl₃ gave pyridine homocyanide (1-(6-methyl)-pyridinium chloride), m. 100-100°. 1-(Phenylmethyl)-amine-1,3-pyridinediyl (1.0 g.) in 15 cc. EtOH was mixed with 1.2 g. 6-aminopyridine in 5 cc. EtOH and allowed to stand for 2 hrs. after which there was slowly

added 0.5 cc. concentrated HCl to yield the 4-phenoxy- β -phenanthroimidazole-2,4-pyridinediyl-3,6-dihydro- β -phenanthroimidazole-HCl, m. 127-9° (from dil. MeOH and a little HCl). A similar reaction with 6-methoxy-4-aminopyridine gave the corresponding 4-aminopyridine, cherry red, m. 116-17° (from dil. MeOH and HCl). Freshly dried pyridine (1 g.) and 4.0 g. 6-methoxy-4-aminopyridine in 35 cc. Et₂O treated with 1.25 g. CNBr to 10 cc. Et₂O, with refluxing, gave after several minutes an abundant ppt. of RNHCH₂CH₂CH₂NH₂Br (R = 6-methoxy-4-aminopyridine), violet, m. 120-1° (from Et₂O); the above reaction with 6-aminopyridine gave 73.2% of RNHCH₂CH₂CH₂NH₂Br (R = 4-aminopyridine), cherry-violet, m. 125-6° (from Et₂O). 1-(2,4-Diisopropenyl)pyridinium chloride (2.0 g.) in 300 cc. EtOH was treated with 20 g. 22° Et₂NH, stirred for a few min., warmed for 30 min., to 60-70°; after removal of excess of the Et₂NH, the residue was treated with 150 cc. cold water, filtered, and the filtrate treated with 20% NaOH and evap. with Et₂O to give 28.4% 2,4-dihydro-2,4-pyridinediyl, m. 170-1°. This alkide (1 g.) in 2 cc. EtOH was added to 1.1 g. 6-methoxy-4-aminopyridine, heated for 10-15 min. to 40-45°, cooled, and then treated with 0.6 cc. concentrated HCl; addition of Et₂O and refluxing induced the product to solubility and yielded N-(2-methoxy-6-aminopyridine)-2,4-pyridinediyl-3,6-dihydro- β -phenanthroimidazole (dihydrate 1-(6-methoxy-4-aminopyridine)-2,4-pyridinediyl-3,6-dihydro- β -phenanthroimidazole), m. 121-2°, sol. in water, EtOH, Me₂CO, and insol. in Et₂O. G. M. Kandappill

415-114 METALLURGICAL LITERATURE CLASSIFICATION

1-5. Research + Synthesis, Analysis + Methods





KNUNIANTZ, I.

Knuniantz, I., Rogevin, I., Rymashovskaya, J., and Height, E. - "Investigation in the field of Polymerizing the Unstable Cycles. I. Investigation of the Polymerization Process of Caprolactam" (p. 992)

SO: Journal of General Chemistry, (Zhurnal Osnovnoi Khimii), 1947, Vol. 17, No. 5

KNUNIANTZ, I.

Rogovin, Z., Hight, E., Knuniantz, I., and Rymachevskaya, U. - "Investigations in the Field of Polymerization of Unstable Cycles. II. Polymerization of Caprolactam in the Presence of Small Amounts of Water." (p. 1320)

SO: Journal of General Chemistry, (Zhurnal Osnovnoi Khimii), 1947, Vol. 17, No. 7

ANONYMANTS, LLC

10

Reaction between chrysene sulfide and phosphorus trichloride and P_2O_5 (R. N. Hawley, J. Chem. Soc. (London), 1934, 124-126 (1937) (a) Preprint). The following yields were found: by heating 10 g. chrysene sulfide and 30 g. P_2O_5 in 50 ml. ether in a steel receiver at 100°, the reaction mixture was cooled and concentrated, then the product was extracted with 3 ml. CHCl_3 and 1 ml. of H_2O yielded 10.5 g. chrysophosphine (D), a colorless liquid, b.p. 105°, n_D 1.51-1.52, d₄ 1.000, v_{max} 1.4000 cm⁻¹, no vapor pressure, slightly sol. in water and CHCl_3 . D is phosphorus-chrysene, a colorless liquid, b.p. 105°, n_D 1.51-1.52, d₄ 1.004, sol. 1.000, and 44.0 g. phosphochrysene, a colorless liquid sol. in water and CHCl_3 , soluble and, in ether, b.p. 105-8°, d₄ 1.000, v_{max} 1.4000. D (8.5 g.) in 10 ml. methanol was added to 1.25 g. Na in ether and the mixture was cooled and agitated. It was趁热 (hot) and the phosphochrysene was prep'd. during the reaction period of 30-50 hrs. AgCl (0.5 g.) in 10 ml. of methanol, ether was added slowly with cooling, and then the reaction mixture was heated slowly on the steam bath for 8 hrs. Distn. yielded 0.5 g. (40%) of O-arylsulfone, of 1, a colorless incombustible liquid, b.p. 105-8°, d₄ 1.0000, v_{max} 1.4000; the O-arylsulfone, a colorless incombustible liquid, b.p. 140-4°, was prep'd. in an analogous manner. Phosphochrysene was prep'd. by the

method of 1 to 3% H_2S , with cooling and agitation. It gave a colorless liquid which with AgNO_3 gave a ppt. of the yellow Ag salt when dissolved in air. The phosphochrysophosphines were prep'd. in an analogous manner to the chrysophosphines. Proposiphosphine was a colorless liquid, b.p. 27-9°, d₄ 0.9704, v_{max} 1.4000, and triprosiphosphine, a colorless liquid, b.p. 65°, d₄ 1.0233, v_{max} 1.4000. It was also prep'd. by passing P_2S_5 into 2 g. of Na in 100 ml. of liquid NH_3 until the disappearance of the blue coloration. Then 10 g. chrysene sulfide was slowly added with agitation and a ppt. obtained. After evapn. of the NH_3 , 17 ml. water was added. Distn. resulted in 70% of the product. D. P. Holloway

A10-314 METALLURGICAL LITERATURE CLASSIFICATION

SEARCHED

KNICKNACKS, ETC.

64

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The mutual ratios between aliphatic carboxylic acids and hydroxylic acids, $\text{I} \cdots \text{I}' \cdots \text{I}''$ (see above), $\text{C}_6\text{H}_5\text{CO}_2\text{H}$ (in French).—The portion of $\text{C}_6\text{H}_5\text{CO}_2\text{H}$ was added to the mixture (II) in these ratios, and the yield of aliphatic polyesters. Maximal yields are obtained (provided with $\text{CH}_3\text{CO}_2\text{O}$) when the

amount of I is either 0.07%, and when the other contains 1.5-0.7% Na_2O . Below (500 ml.), 20 g. anhydrous NaP , and 27 g. powdered $\text{CaO}/\text{Ca}_3\text{O}_2$ are heated in a steel bomb 6 hrs.

W. Fluhr

2003-2004 SEASON MEMORIAL SCHOLARSHIP

CONTINUATION

APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000723320020-2"

KNUNYANTS, I. L.

25

CA

Pyridine analogs of di- and triphenylmethane dyes and their salts. I. I. Kurnyants and V. M. Berezovskaya. Zhur. Khim. i Khim. Zdaniia, No. 400-6 (1947); Chem. Abstracts, 41, 10000 (1947). — The preparation of R_1COH (I), m. 102-3°, $R_1'COH$ (II), m. 134-5°, $R_1'COH$ (III), m. 141-8°, and $R_1'COH$ (IV), m. 172-3°, (R_1 = 2-methoxybenzo-3-pyridyl and R_1' = 4-dimethylaminophenyl) have been described (cf. C.A. 41, 1000, 410). While IV does not share the characteristics of a dye, I, II, and III are typical dyes. They are analogs of crystal violet and their absorption spectra are shifted toward the short wave length portion of the spectrum as compared with the absorption spectrum of crystal violet. Crystal violet: λ_{max} = 580.0 m μ , HCl salt of III: λ_{max} = 580 m μ , HCl salt of II: λ_{max} = 580 m μ , HCl salt of I: λ_{max} = 583 m μ . The assuming of the β -quinoxaline structure or its prohibition because the double bonds of derivs. of α -anilinoquinoxaline remain fixed does not explain the fact that salts of IV are not dye while salts of I, II, and III can scarcely be distinguished from crystal violet. On the basis of other considerations it is considered that dyes of the Ph_2CH series are best represented by the formula: $[R_1C=O]Cl^-$. — M. G. Moore

Inst. Org. Chem., AS USSR

1951

IMONKANTS, I. L.

"Interaction of Aliphatic Oxides and Hydrogen Fluoride," I. L. Imonkants, *Corr Mem Acad Sci*; D. V. Il'inskaya, N. J. Bikkovskaya, *Inst Org Chem, Acad Sci USSR*, 4 pp.

"Dok Akad Nauk SSSR, Nova Ser." Vol LVII, No 1

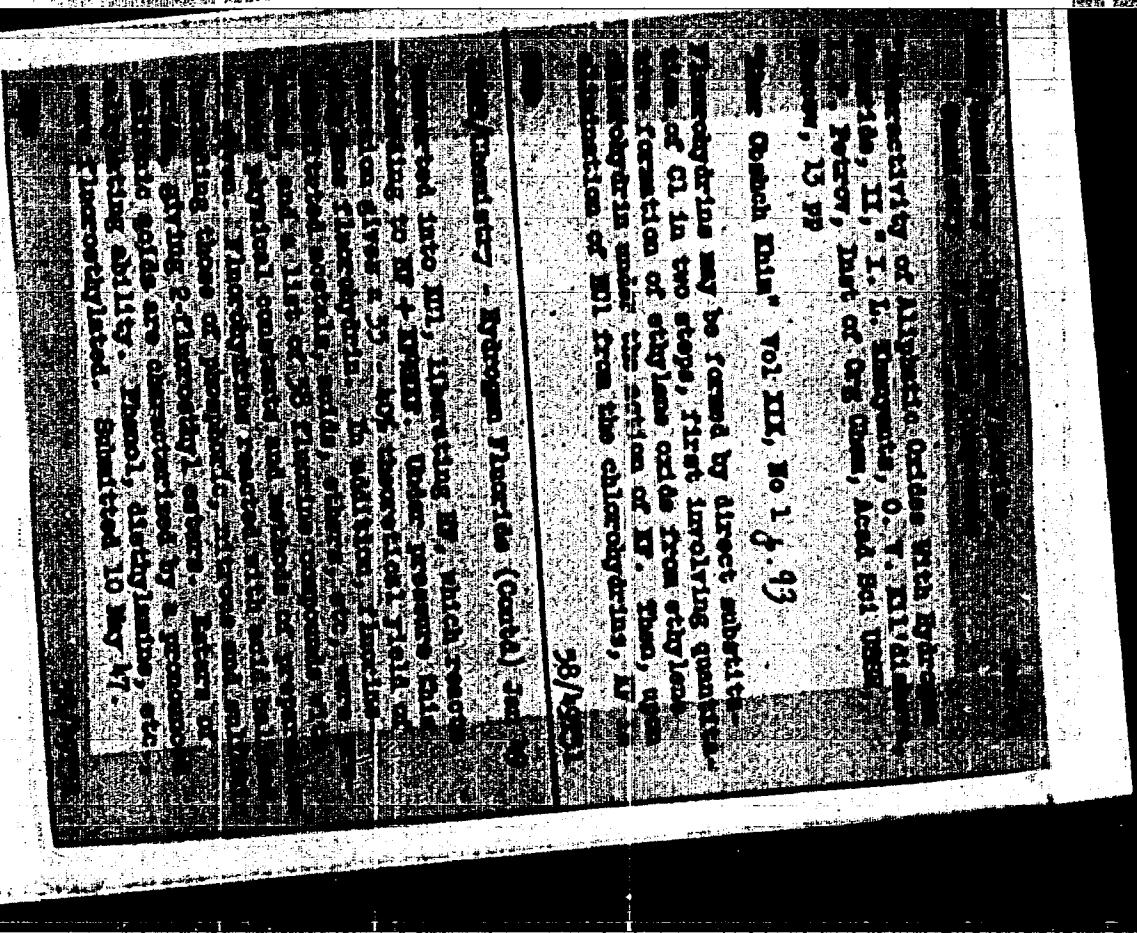
Describes new reaction in separation of aliphatic oxides by hydrogen fluoride which produces glycol fluorhydrin and simultaneous spontaneous change of atoms of chlorine into fluoride.

KOUNTANTS, I. L.

APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000723320020-2"

KNYANTYS, I. L.



KUNYANTS, I.

PA 27/49740

USSR/Chemistry - Pharmaceuticals Sep/Oct 48
Chemistry - Organic Compounds, Aromatic

"Academician Vladimir Mikhaylovich Rodionov (on
His 70th Birthday)," I. Kunyants, 3 pp

"Iz Ak Nauk SSSR, Otdel Khim Nauk" No 5 465

Congratulatory message to Rodionov, chemist,
biochemist, and physiologist, who organized
pharmaceutical and aniline-coloring industries in
Russia. He specializes in the aromatic series and
is particularly interested in β -amino acid.

27/49740

KNUNYANTS, I. L.

PA 68T46

UNION/UNIVERSITY POLYESTER, DIALKYLEDE 705-150

"Synthesis of the Derivatives of Malonic Acid," I. L. Shabotov, *Khimi i Tekhnika Plasticheskikh Mass* (Chemistry and Technology of Plastic Masses), 1955, No. 11, p. 1515 (Bulgarian (December), 51, 1955).

Digitized by srujanika@gmail.com" Vol. XXIII (XXX), No. 2 - April

Reaction of α -Menthene with Vinyl Bromide by condensation with α -methylstyrene and α -methyl aldehydes, above the
reaction of α -Menthene with vinyl bromide, α -methylstyrene and α -methylaldehyde, to
give the corresponding substituted α -methylstyrene and α -methylaldehyde, is
described in the following paper: *J. Am. Chem. Soc.* 68, 1050 (1946).

APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000723320020-2"

KNUNYANTS, I.L., KAL'DISHEVA, O.V., BYKHOVSKAYA, E.

Reactions of Alphatic Oxides with Hydrogen Fluoride, Communication II, Zhurnal
Obshchey Khimii, Vol.19, No. 1, 1949, pp 101- 113.

KNUNYANTS, I. L.

PA 6/19/52

Chemistry - Crystal Violet, Pyridine Apr 18
Analogues of
Chemistry - Dyes

"Dyes of the Di- and Tri-Pyridil-Methane Series,
I," I. L. Knunyants, V. M. Berzovskiy, Lab
Heterocyclic Compounds, Inst Org Chem, Acad Sci
USSR, 78 pp

"Vestn Otech Khim" Vol XVIII (LXXX), No 4 p.775

Describes preparation and structure of pyridine
analogues of crystal violet. Submitted 17 Mar 1947.

6/19/52

KNUNYANTS, I. L.

PA 8/4953

Wool/Chemistry - Dyes
Chemistry - Synthesis

Apr 48

"Dyes of the Di- and Tri-Pyridil-Methane Series,
II," I. L. Knunyants, V. M. Berezovskiy, Lab.
Heterocyclic Compounds, Inst Org Chem, Acad Sci
USSR, 91 pp

"Khur Obshch Khim" Vol XVIII (LXXX), No 4, 1947

Describes synthesis and color of a number of
pyridine analogues of di- and trienylmethane dyes.
Submitted 17 Mar 1947.

8/4953

"APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000723320020-2

CA

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Bookmass rearrangement of alkaloids. I. L. Kavunyanis
and B. P. Polikirsky. Uspolki Khim. 18, 632-67 (1949).
A crit. review; 113 references. N. Tish

1951

APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000723320020-2"

KNUNYANTS, L.L.

CA

13

Rearrangement of esters of cyclic ketones. The rearrangement of 3,4-dihydro-2,1,1-*o*-naphthalene-2-*o*-one (I) and 3,4-dihydro-2,1,1-*o*-naphthalene-2-*o*-one (II) adduct with NaOMe with an excess of NaOMe gave 85% I ester; the free ketone gives a much poorer yield. The ester (8.8 g.) in 9.2 ml. dry pyridine treated with 0.5 g. *p*-Me₂Co₂NO₂Cl in pyridine at -5°, then let stand overnight at 0°, and treated with ice, gave 8.2 g. 1-*o*-*o*-nitro-*p*-nitrophenyl ester, m. 111° (from dil. pyridine). This (1.8 g.) in 24 ml. MeOH heated in a sealed tube to 100°, 0.75 hr., filtered, concentrated, and dried with H₂O gave a tar which, std. with benzene and neutralized with NaClO₄ on cooling, gave 78% o-(2-nitro-*p*-nitrophenyl)phenylketone (III), m. 170-171° (from H₂O). I added to 210 ml. H₂O, (equiv. 0.008 g./ml.) in CH₂Cl₂, and treated at 25° with 34 ml. concentrated H₂SO₄, over 2 hrs., quenched with ice, and neutralized with NaOMe, gave 10.4 g. solid, b.p. 196-8°, resolved by soln. in Me₂CO into 1.15 g. II and 2.1 g. less sol. o-(aminoethyl)-*p*-nitrophenylpropionic acid ketone, m. 109-110° (from H₂O).
(J. M. Knunyants)

KNUNYANTS, E. L.

10

CA

Rearrangement of amine of cyclic ketones. Rearrangement of the diolone of 1,4-cyclohexanedione. I. E. Knunyants and N. P. Patrichay. *Debeldy et al.* *Nauk. N.Y.S. A.*, 68, 701-4 (1960).—1,4-Cyclohexanedione diolone (I) does not have a characteristic m.p. and its spatial configuration is unknown; however, the possibility of the coexistence of syn and trans forms is supported by the rearrangement products, which after hydrolysis yielded $(\text{CH}_3\text{CO}_2\text{H})_2$, $(\text{CH}_3\text{NH}_2)_2$, and β -alanine. The rearrangement in $\text{N}_2\text{H}_4 \cdot \text{H}_2\text{O}$, gave only nondeterminable products. Hence the β -alanine- H_2O deriv. (see below) was used. 17 g. I treated in 20 ml. pyridine with 21 g. p -McCl₂- SCl in pyridine at -5° , and let stand overnight at n° , followed by dil. with ice-water, gave 20.8 g. β - $(\text{p}$ -*nitrobenzyl)- NH_2 , m. 163° (from dil. pyridine). This (13 g.) heated 97 min. with 16.5 MgO in a sealed tube to 100°, followed by heating the evapn. residue with 60 ml. conc. HCl , gave 0.3 g. $(\text{CH}_3\text{CO}_2\text{H})_2$, as well as some $(\text{CH}_3\text{NH}_2)_2$ and β -alanine. If the hydrolysis is conducted with 10% p -McCl₂- SO_3Na for 8 hrs. and the evapn. residue, extd. with MeOH , is treated with citric acid, there is obtained 0.43 g. mixed microcrystals of $(\text{CH}_3\text{NH}_2)_2$ and β -alanine; passage of dry HCl into an EtOAc suspension of this gave 0.28 g. residue which with pertechnetate gave authentic ethylthiobutanium picrate, m. 229-4° (23.4%). While the EtOAc soln. on dil. with H_2O , etc. with EtOAc and $\text{Im}-\text{Ac}_2\text{N}$, decolorization, and evapn. gave 1.74 g. β -alanine- HCl (from $\text{Im}-\text{PrOH}$), m. 118-20°. O. M. Kondratenko*

"APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000723320020-2

CA KNUNYANTS, I.L.

10

Addition of hydrogen fluoride to mercurates and chlorates
I. L. Knunyants and A. V. Pashin // Peter A. Karr 19
Sov. Dokl. 1930 // Crit. review: 9.15 references // There

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APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000723320020-2"

KHUNYANTS, I. L.

"The Most Important Achievements of Modern Soviet Organic Synthesis," Khim.
v Shkole, No.2, pp 3-15, 1951

Digest W-20576, 3 Dec 51

AS!

Permitting

KNUNYANIS, I.L.

4428

POLYMERIZATION OF FLUOROCOLEFINS. I. I. Berezin
and A. V. Pulin. *Tezgod. Khim.* 22, 40-50(1961) May-June.
The following subjects are reviewed on the basis of published papers: tetrafluoroethylene, chlorotrifluoroethylene, perfluorotetrafluoroethylene, vinylidene fluoride, 1,1-dichloro-1,2-difluoroethane, vinyl fluoride, hexafluoropropene, vinylidene-2,2-difluoroethane, fluorocrylyene, and polyfluorocrylyenes. The bulk of the information given is based on foreign publications.
The following Russian work is referred to: A. P. Berezin's synthesis of organic acid fluorides for the first time, A. N. Kostomyan's synthesis of butyl fluoride for the first time, and A. L. Moshanov's method of preparing acid fluorides by heating acid chlorides with KF (Zhur. Obrabotki Khim. 15, 918(1949)).

(CA 48 no.1:397 '54)

KERDYANTS, I. L. & YOKIN, A. V.

Olefins

Reactions of addition of perfluorolefins. Izv. AN SSSR Otd. khim. nauk no. 2, 1952. p. 161-67

9. Monthly List of Russian Accessions, Library of Congress, August 19⁷⁵, Unci.

ENUNYANTS, I.L.; FABRICHNY, B.P.

Beckmann rearrangement. Rearrangement of α -ionone oxime. Doklady Akad.
Nauk S.S.R.R. 85, 793-5 '52.
(MIRA 5:8)
(CA 47 no.19:9945 '53)

KNUNYANTS, I.L., chlen-korrespondent.

Some theoretical problems of contemporary organic chemistry. ^{Vest. Akad. Nauk SSSR}
^(MLRA 6:6)
SSSR 23 no. 4:15-29 Ap '53.

1. Akademiya nauk SSSR.

(Chemistry, Organic)

KNUNYANTS, I. L.

TRIFONOV, A.N., akademik; KOMDRAT'YEV, V.N., akademik; KNUNYANTS, I.L.,
akademik; KABACHNIK, M.I.; SOKOLOV, N.D., doktor fiz.-mat. nauk;
KHUTOV, O.A., doktor khimicheskikh nauk; MOSKVICHEVA, N.I.,
tekhnicheskiy redaktor

[Status of the theory of chemical structure in organic chemistry]
Sostoyanie teorii khimicheskogo stroyenia v organicheskoi khimii.
Moskva, Izd-vo Akademii nauk SSSR, 1954. 172 p. [Microfilm]
(MLRA 7:10)

1. Chlen-korrespondent AM SSSR (for Kabachnik) 2. Akademiya nauk
SSSR. Otdeleniye khimicheskikh nauk
(Chemical structure) (Chemistry, Organic)

"APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000723320020-2

KNUNYANTS, I.L., akademik.

Transformation of substances. Znan. sils no.1:10-11 Ja '54.
(NIRA 6:12)
(Chemistry, Organic-Synthesis)

APPROVED FOR RELEASE: 06/19/2000

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KNUMYANIS, I. L.

Chemical Abst.
Vol. 48 No. 9
May 10, 1954
Organic Chemistry

Chem
Acyclic reactions of perbenzoylides. I. I. Knumyans
and V. V. Sushko. Bull. Acad. Sci. U.S.S.R. Div. Chem.
Sci. 1953, 771-83 (Eng. translation).—See C.A. 47
22216.

SIMONE, Joseph, 1897- [redaktor]; KUNYANTS, I.L., chlen-korrespondent [redaktor];
VARSHAVSKIY, Ya.M., kandidat khimicheskikh nauk [redaktor].

[Fluorine and its compounds] Ftor i ego soedineniya. Volume 1. Perevod s
angliiskogo, pod red. I.L.Kunyantsa i I.A.M.Varshavskogo. Moskva, Izd-vo
inostrannoi lit-ry, 1953- . (MLRA 6:8)

1. Akademiya nauk SSSR (for Kunyants).

(Fluorine)

KNUNYANTS, I. L.

"Addition Reactions of Fluoroolefins. II. Addition of Alcohols and Thiols to Perfluoropropylene," by I. L. Knunyants, A. I. Shchekotikhin, A. V. Pokin, Iz. Ak. Nauk SSSR, OKhN, No 2, pp 282-289, Mar/Apr 53.

Describes the interaction of alcohols with perfluoropropylene, the saponification of beta-monohydroperfluoropropylalkyl ethers into alkyl esters of alpha-monohydroperfluoropropionic acid, and the addition of mercaptanes to perfluoropropylene.

256728

KNUNYANTS, I. L.

AID P - 1272

Subject : USSR/Chemistry

Card 1/1 Pub. 119 - 1/5

Authors : Knunyants, I. L. and Gambaryan, N. P. (Moscow)

Title : Reaction of hydromerization

Periodical : Usp. khim., 23, no. 7, 781-820, 1954

Abstract : A review of the hydromerization of unsaturated hydrocarbons, aldehydes and ketones, as well as of unsaturated acids is given. It is based principally on non-Russian sources. Four tables, 133 references (7 Russian: 1933-1953).

Institution : None

Submitted : No date

FRIDMAN, Endol'f Arkad'yevich; MASLOVA, Ye.P., redaktor; ~~IMOVANTS, I.L.~~, akademik, retsensent; VOTKEVICH, S.A., kandidat khimicheskikh nauk, retsensent; LOSHAKOV, P.Ya., inzhener, redaktor, retsensent; CHMEYSHINA, Ye.A., tekhnicheskiy redaktor

[Perfumery] Parfumeriya. Izd. 2-e, perer. i dop. Moskva, Pi-shchespromisdat, 1955. 526 p. (MLRA 9:4)
(Perfumery)

Knunyants, I. L.

19

Reactivity of perfluorophenyl ethers and some of their derivatives. I. L. Knunyants, Voprosy Khim. Kinetiki i Kataliza v Rasshirenii, Naukova Dumka, Akad. Nauk S.S.R., 1966, Khim. Nauk. 1955, 726-21.—An account of existing information on reactions of perfluoro compounds. (9 references) and the characteristics of these reactions on the basis of electronic effects expected of the highly electronegative F atoms. O. M. Koschepov

~~KNUNYANES, I. L.~~

USSR/Chemistry - Conversions

Card 1/2 Pub. 40 - 8/27

Authors : Knunyants, I. L.; Lin'kova, M. G.; and Ignatenok, P. G.

Title : Conversions of mercaptoamino acids. Part 1. Isodimethylcysteine and its derivatives

Periodical : Inv. AN SSSR. Otd. khim. nauk 1, 54-61, Jan-Feb 1955

Abstract : Data are presented on the addition reaction of sulfur chlorides and alkyl-thiochlorides to dimethyl acrylic acid and its ester. In contrast to the addition reaction of sulfur chlorides to olefins, which results in the formation of symmetrical sulfides, the addition to dimethylacrylic acid and its esters is concluded by the formation of stable sulphenic chlorides.

Institution : Acad. of Sc., USSR, The N. D. Zelinskii Inst. of Org. Chem.

Submitted : April 9, 1954

Card 2/2

Pub. 40 - 6/27

Periodical : Izv. Akad. Nauk SSSR. Otd. Khim. Nauk 1, 54-61, Jan-Feb 1955

Abstract : It was found that the reaction between the addition products and ammonia results in the formation of alpha-mercaptop-beta-aminoisovaleric acid which is an isomer of natural dimethylcysteine and some of its derivatives. Two references: 1 German and 1 USA (1901 and 1946).